

## "Check-in" behavior interventions

Benefit-cost estimates updated July 2015. Literature review updated May 2015.

Current estimates replace old estimates. Numbers will change over time as a result of model inputs and monetization methods.

The WSIPP benefit-cost analysis examines, on an apples-to-apples basis, the monetary value of programs or policies to determine whether the benefits from the program exceed its costs. WSIPP's research approach to identifying evidence-based programs and policies has three main steps. First, we determine "what works" (and what does not work) to improve outcomes using a statistical technique called meta-analysis. Second, we calculate whether the benefits of a program exceed its costs. Third, we estimate the risk of investing in a program by testing the sensitivity of our results. For more detail on our methods, see our [technical documentation](#).

Program Description: Check-in behavior interventions provide support for at-risk students in order to reduce dropouts, promote engagement at school, and reduce problem behaviors. Typically, students must check-in with a designated adult at the school each day. The designated adult collects and monitors data on at-risk indicators (e.g. tardiness, absenteeism, discipline referrals, and poor grades); provides feedback and mentoring; facilitates individualized interventions as appropriate; and ensures communication with parents. The programs included in this analysis are (in no particular order) Check-In, Check-Out (also known as the Behavior Education Program); Check and Connect; and Check, Connect, and Expect.

### Benefit-Cost Summary

Program benefits		Summary statistics	
Participants	(\$424)	Benefit to cost ratio	(\$1.07)
Taxpayers	(\$163)	Benefits minus costs	(\$2,755)
Other (1)	(\$189)	Probability of a positive net present value	45 %
Other (2)	(\$650)		
Total	(\$1,426)		
Costs	(\$1,329)		
Benefits minus cost	(\$2,755)		

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our [technical documentation](#).

## Detailed Monetary Benefit Estimates

Source of benefits	Benefits to				
	Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Crime	\$0	\$2	\$7	\$1	\$10
Labor market earnings (test scores)	(\$430)	(\$183)	(\$219)	\$0	(\$832)
Health care (disruptive behavior disorder)	\$6	\$17	\$22	\$9	\$53
Adjustment for deadweight cost of program	\$0	\$1	\$2	(\$660)	(\$657)
<b>Totals</b>	<b>(\$424)</b>	<b>(\$163)</b>	<b>(\$189)</b>	<b>(\$650)</b>	<b>(\$1,426)</b>

We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

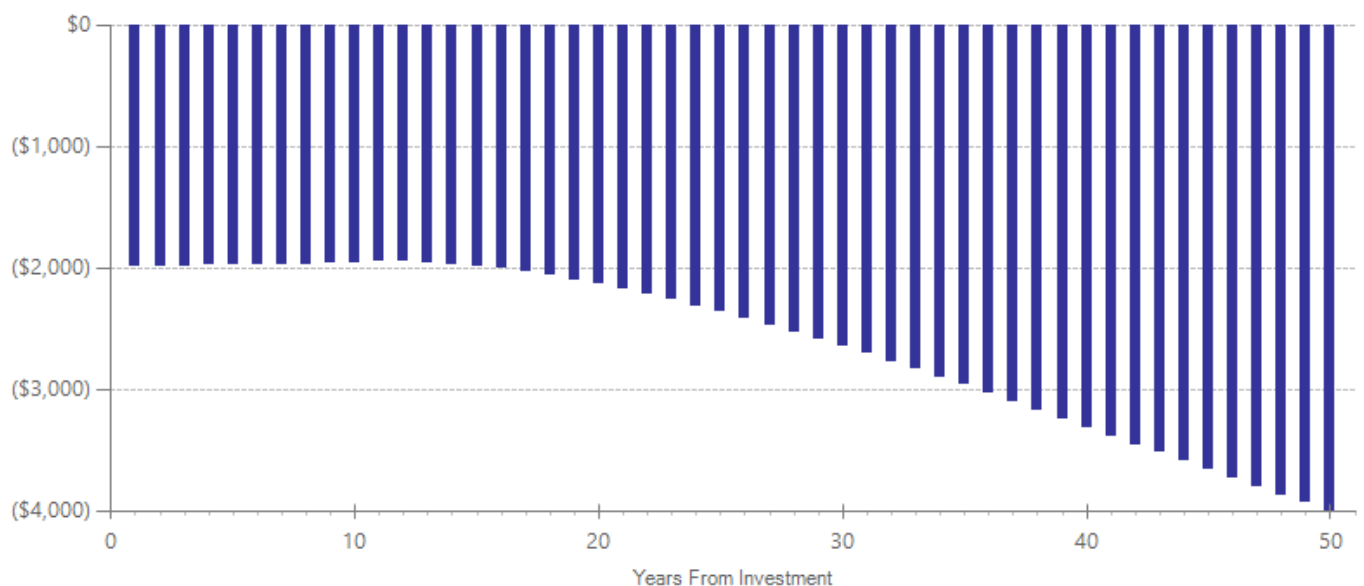
## Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	\$1,329	1	2014	Present value of net program costs (in 2014 dollars)	(\$1,329)
Comparison costs	\$0	1	2014	Uncertainty (+ or - %)	30 %

Costs for check-in programs can vary depending on the type and intensity of the intervention. To calculate a per-student annual cost, we use the average between a minimal check-in program facilitated by a paraprofessional serving a caseload of up to 15 students and a more intensive program facilitated by a school counselor with a caseload of up to 35 students. We use average Washington State compensation costs (including benefits) for K-12 staff as reported by the Office of the Superintendent of Public Instruction and include training time in our estimate. Program implementation details are based in part on information provided by the following sources: National Center on Intensive Intervention. (n.d.) Behavior Education Program (BEP) or Check-in/Check-out (CICO). Retrieved from <http://www.intensiveintervention.org/chart/behavioral-intervention-chart/13178>; and Coalition for Evidence-Based Policy. (2015). Check and Connect. Retrieved from <http://evidencebasedprograms.org/1366-2/check-and-connect>.

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our [technical documentation](#).

## Cumulative Net Cash Flows Over Time (Non-Discounted Dollars)



## Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Grade point average	Primary	1	89	0.070	0.633	0.070	0.146	15	0.070	0.146	15
Externalizing behavior symptoms	Primary	1	121	-0.218	0.298	-0.094	0.209	9	-0.045	0.110	12
Office discipline referrals	Primary	2	116	-0.276	0.054	-0.276	0.143	15	-0.276	0.143	15
Test scores	Primary	1	121	-0.037	0.858	-0.016	0.209	9	-0.010	0.230	17
Internalizing symptoms	Primary	1	121	-0.325	0.122	-0.140	0.210	9	-0.102	0.169	11
School attendance	Primary	1	89	0.010	0.945	0.010	0.146	15	0.010	0.146	15

## Citations Used in the Meta-Analysis

Cheney, D.A., Stage, S.A., Hawken, L.S., Lynass, L., Mielenz, C., & Waugh, M. (2009). A 2-year outcome study of the Check, Connect, and Expect intervention for students at risk for severe behavior problems. *Journal of Emotional and Behavioral Disorders, 17*(4), 226-243.

Maynard, B.R., Kjellstrand, E.K., & Thompson, A.M. (2014). Effects of Check and Connect on attendance, behavior, and academics: A randomized effectiveness trial. *Research on Social Work Practice, 24*(3), 296-309.

Simonsen, B., Myers, D., & Briere, D. (2010). Comparing a behavioral Check-In/Check-Out (CICO) intervention to standard practice in an urban middle school setting using an experimental group design. *Journal of Positive Behavior Interventions, 13*(1), 31-48.

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